Scope 4 – Avoided Emissions

As companies around the globe continue to make progress towards net-zero, ever greater focus is being placed on the impacts of their sustainability efforts. Reporting standards such as the Task Force on Climate-Related Financial Disclosures (TCFD) and the EU's Corporate Sustainability Reporting Directive (CSRD) are obliging organisations to make widespread emissions disclosures. Within this emerging landscape, there is growing discussions around the concept of "avoided emissions", sometimes referred to as Scope 4.

The Scope boundaries as set out in the Greenhouse Gas Protocol (GHG Protocol) account for a range of emissions, including direct emissions from owned or controlled sources, Scope 1; indirect emissions from the generation of purchased energy, Scope 2; and other indirect emissions occurring throughout the value chain, Scope 3. Scope 4 proposes to go a step further, accounting for emissions reductions achieved in the value chain through the use of an organisation's own products and services. Though it has not been recognised by the GHG Protocol, it presents an important opportunity for companies and their stakeholders to gain a comprehensive understanding of their impacts and progress.

What is Scope 4?

First proposed by the World Resources Institute (WRI) in 2013, the concept of "avoided emissions" has added a new dimension to measuring an organisation's emissions footprint. Scope 4 enables businesses to take into account the reductions in emissions occurring in the value chain as a result of the use of a product or service they produce. For example, if an organisation produces a cable which is more energy efficient than competitors, they could claim the potential reduced emissions as a result of customers using their cable over alternatives. This is in contrast to the existing three scopes, which focus on actual emissions, either directly or indirectly, rather than potential emissions that did not actually occur.

Following the initial proposal a more detailed working paper was released by the WRI in 2019 - [Estimating and Reporting the Comparative Emissions Impacts of Products]. This set out a neutral framework to calculate and report the "avoided emissions" between two comparative products. Under the working paper guidance, "avoided emissions" are defined as the decrease in emissions that occur from the use of a 'low-carbon' alternative in place of a traditional 'carbon-intensive' product.

These reductions can range from relatively straightforward to significantly complex to accurately measure. A more efficient appliance such as a kettle for example, can be measured through the decrease in energy consumption. Others, such as teleconferencing services can be more complex to account for accurately. The advent of widespread virtual meeting platforms presents significant opportunities for a decrease in business travel, however for the platform provider it can be difficult to account for how many journeys have been avoided. Some remote meetings may have occurred when an in-person meeting would not have, meaning no journey was avoided.

Companies may already see some impacts from their produced low-carbon products under Scope 3 Category 11 Use of Sold Products. However, this category only considers the absolute emissions incurred, and not the potential avoided emissions per product or use compared to existing alternatives. Therefore, a company that innovates a product that produces 30% fewer emissions yet results in a 60% increase in sales would see their Category 11 footprint total grow.

Under Scope 4, a company would be able to account for the emissions avoided through more carbon efficient product design offsetting an increase in Category 11 from any corresponding increase in sales volume.

Asesoria's Comment

As mentioned above, Scope 4 is not an official term adopted by the GHG Protocol, but instead is a term for avoided emissions coined because of the prevalence of understanding of Scope 1,2 and 3 emissions. Due to this, there are yet to be robust guidelines or principles developed for calculating avoided emissions which are to the same standard as emissions calculated under GHG Protocol. This has led to a debate of whether avoided emissions will ultimately have a positive or negative impact.

The Positives

Whilst the GHG Protocol remains the standard for emissions reporting worldwide, there has long been discussion about potential flaws in its structure that obscure an organisation's ability to comprehensively report on their impacts on the environment, and the positive progress they are making. One such highlighted concern is the inability to account for avoided emissions within the existing three scopes.
Scope 4 reporting would enable organisations to present the full spectrum of their contributions and developments towards net-zero, recognising the positive externalities of its products and services beyond its own operations. This view towards external impacts is a growing area of focus, as seen with the development of double materiality as included within CSRD.

For many companies, their ability to affect positive change beyond their own operations far exceeds the improvements they can achieve internally. For sectors such as appliance manufacturing, the automobile industry, or sustainable construction, whilst managing internal emissions remains important, it is in the development of low-carbon products that their greatest contributions to net-zero can be realised.
Enabling these organisations to report their positive external impact in a recognised, reputable standard would only serve to further encourage investment and innovations into low-carbon product development. Such initiatives will in turn offer further opportunities for other companies to make further progress on their own net-zero transitions.

The Negatives

Whilst the concept of Scope 4 presents some significant benefits for reporting organisations, there remain some key concerns, particularly around the risks of greenwashing.

Critics of the concept have pointed out that unlike the three existing scopes, Scope 4 doesn't seek to report on actual emissions occurring, but rather hypothetical emissions that could have occurred. This would enable organisations to focus on these 'avoided emissions' from their value chain as a potential distraction from the lack of progress in reducing their own emissions.

Some companies may choose to focus on calculating their 'avoided emissions' under Scope 4, rather than further developing their actual emissions reporting, particularly on Scope 3 where many feel they have little ability to make an impact. Simply obtaining accurate data from customers and suppliers can be complex, and only a small number of major companies find they have leverage to affect change.

Furthermore, there is an inevitability of double counting between organisations. Emissions reductions from the use of low-carbon products would be claimed in the Scope 1 of the owning company, and the Scope 4 of the producer.

The WRI is aware of these risks, and explicitly states within its working paper that organisations should only look to calculate "avoided emissions" once all three existing scope inventories are complete. The working paper also makes no effort to refer to 'avoided emissions' as Scope 4, in recognition of the fact that they are a fundamentally different concept.

Greenwashing has become a growing concern as companies compete to deliver low-carbon alternatives and maintain their reputations. Legislation such as the EU's Green Claims Directive is working to clamp down on such practices, and any moves towards widespread reporting on "avoided emissions" will likely attract significant scrutiny of any claims made.

Summary

The concept of "avoided emissions" will become more commonplace as the global transition to net-zero accelerates. Creating a recognised framework to enable organisations to report on the positive environmental impacts of their products and services will provide greater incentive for investors and clearer options for customers.

Nevertheless, organisations must engage with the concept in good faith and not as an effort to distract or obscure from their own operations impacts. Companies should continue to prioritise the three existing scopes and their net-zero transition. Where they wish to disclose "avoided emissions", they should be transparent on how these were calculated and clearly distinguish them from their other emissions reporting.